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to the need for enlarged production of essentials and to the maximum of economy in both public and private expenditures. Financial machinery is, after all, only a means to an end. There are grounds for concern when we view gold and federal reserve notes as "capital" and fancy that by concentrating the one and by issuing the other we are necessarily aiding production. When we laud the achievements of the United States Steel Corporation for having done more dollars' worth of business in 1917 than in 1916, but overlook the serious fact that its output in tons showed an actual decline of about 5 per cent, our judgment is awry. National budgeting is hindered, not helped, if banking machinery is utilized as a means of inflation.

## THE FALLACY OF PRICE BIDDING

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The law of supply and demand assumes that a rising price tends to increase supply while falling prices lead to a reduced production. The basis of this generalization is an induction from the action of price changes on particular commodities or on a market of limited range. What our ancestors saw was the immediate effect of price changes. They had no means of estimating world phenomena. To us, however, a world economy is a reality and its fact as easily ascertained as are those of localities. As statistics are compiled it is easier to obtain the data of world industry than of local trade. What the trade of Philadelphia or New York is no one knows with the accuracy with which international figures are compiled. Price changes now affect the whole world or at least several nations. We can, therefore, trace their effects with a precision impossible even a generation ago.

Our fathers bid for commodities and saw as a result a flow of increased goods to their locality. They might know where the articles came from but they did not know what effect the withdrawal of these commodities had on the nations sending them. We now have the facts of both sides of the ledger or, better put, we have the ledger of the receiving and losing nation. On these facts

our opinions should rest and not on theories derived from the imperfect knowledge of the past.

English economic history affords examples of price bidding. The industrial revolution gave her such an advantage in production that she could underbid other nations in selling and overbid them in buying. Commodities fell in price while the price of food rose. The importations were mainly in wheat and the exportation in textile fabrics. Where did the wheat come from and was it an additional production or merely a withdrawal from other markets? The soil of Ireland had been used for the production of food for its own inhabitants of which there were about eight millions. The high price of wheat made it profitable to raise wheat for the English market. The home population was left unfed or forced to migrate. Ireland thus lost three million of her population due to the surplus being transported to England. It is usually said that the migration was due to the failure of the potato crop but this was the immediate not the ultimate cause. Wheat and potatoes cannot be grown in the same field. The profitable crop displaces the less profitable, and the local population must adjust itself to the new situation. The same tendency showed itself earlier in the movement of population from the south to the north of England. The industries of the north outbid the southern industries for the food of England and as a result both food and population moved to the north. When such a change occurs within a nation the change is not noticed or, if seen, the transformation is accepted as an element in progress. This may be true, but where did the food come from? Was it a new creation due to its higher price or was it a withdrawal which forced a reduction of population of some other regions? The answer in both these cases is the same. The food was a withdrawal, not a fresh creation. The places from which it came lost population to offset the gain of the new markets. Profits rose but not gross production. The gain was thus in net produce which is profitable to both parties making the exchange while the interest of the people in the exporting country is ignored.

These facts are equally patent in the foreign countries from which England's food came. They lost their industries, sank or remained stationary in population. The landowners became local aristocrats who took the greater part of the gain which English commerce brought. We think of the prosperity which England

obtained but overlook the advantage landed aristocrats obtained thereby in other lands. Our southern slaveholders are an illustration of this. The aristocracy of Poland gained their power to oppress by the exportation of wheat just as the southern slaveholder did by the exportation of cotton. The French Revolution had its background in the same cause. England could pay more for wheat than could the French artisans. The food went out and cheap goods came in. French workers were thus subjected to a double strain. They lost their food and employment. The benefited class was the French landlord. Where goes the food there goes population and with population comes wealth. The world is not the better from the change but some place or class may be. High prices and high net industry go together and make a civilization dominated by landlords and profit getting.

America at the present time faces this situation. We cannot draw goods from other nations: they are drawing goods from us. The advantages and detriments of our national policy can thus be measured by their effects at home. More corn or wheat means more home production, or a shift in the use of land from other to these uses. We must, therefore, measure both the gains and losses of crop transfers to ascertain the net results. Our country is not a huge wheat field but a series of belts, each fitted for some crop. We have a cotton belt, two wheat belts, a corn belt and other areas fitted for dairy products, sugar, rice and potatoes. In addition to lands good for these special purposes we have a mass of poor land suited to none of our leading crops.

What is the effect of higher food prices on the good corn, cotton or wheat land; and then what is its effect on the poor land as above described? On good land higher prices have their effect in a higher price of land and in a greater net produce but not in an increase of gross produce. When prices go up, rent goes up more than proportionally, leaving the worker in a worse position than before. To say that the acreage is increased by 20 per cent means nothing, therefore, if the new land is poor land. While some new fields come into use many more are going out of cultivation because of soil defects. The limits to our farm produce are thus definitely set until some transformation of our agriculture takes place introducing new crops or new methods of cultivation. Big changes will count but small ones make merely a temporary shifting of crops with no net gain.

Judged in this way about four acres out of five of our farms must be classed as poor land. The marketable product of the country comes from this fifth acre. These good acres are now fully cultivated and from them the product is limited. From the other four acres the return is diminishing even though by spurts some increase is possible. Poor lands in this sense are those which are hard of cultivation or when cultivated soon lose their fertility. Rocky land is an illustration of the first type and a hillside of the second. When prices rise the farmer reduces the subsidiary crops on which the permanence of fertility depends and devotes more acres to the paying crop. A greater net produce results without an increase in the gross produce. This, however, is only the first stage of the pressure of high prices. The high price of land favors tenant farming. The owner lives off his net produce while a shiftless tenant does the work. This tendency is apparent in every section where high land prices prevail. The present increase of food prices if permanent will make tenant farming universal. We will have a dozen Irelands with the misery which such conditions create.

High prices for good lands mean rich landlords but not full bins from which consumers may draw. This loss is not greater than that which price bidding brings to the poor lands of the nation. It induces people to raise crops for which the land is not fitted. The town public does not realize the marked difference in the productivity of land in localities not far apart. Places in and out of the corn belt often not 25 miles apart have a drop in production from 60 to 20 bushels an acre. The doubling of the price will not make this land a profitable venture. We hear, for example, that two dollars a bushel is not enough to make wheat growing pay. This is not a wild assertion but is true of four-fifths of the land of the country. The same facts hold of corn, cotton or any other crop. The use of poor lands increases waste and causes the misapplication of labor and capital.

The effect of price bidding in food products was fully worked out in England during the Napoleonic wars. The prices being high it was assumed the farmers were prosperous. Yet an examination showed that the most of them were losing money either because of the high rent they were paying or because of the attempt to grow wheat on land not fitted for its production. We will find the same facts and the same failure if we care to examine the condition of our

farmers. They have tried cropping of the good lands and the conversion of poor lands to new uses. Both are failing not only to increase our gross produce but also to create agricultural prosperity. Farmers are asked to augment their production this year by 25 per cent but we shall be lucky if there is not an actual decrease. Wrong methods of agriculture quickly bring their results in discouragement and failure. The bitter lessons are not forgotten for a generation, during which time the nation will suffer a shortage of food.

The American people escaped from the burden of the Civil War by opening up new areas, but this way of escape is no longer possible. All the good lands are in use. Nor are any great industrial inventions in sight such as gave progress in the epoch preceding 1910. Recent changes have been in the domain of consumption. We have built office buildings, department stores and apartment houses instead of giving the railroads the needed additions to their rolling stock. We thus live better, have more leisure, but produce as we did ten years ago.

A rising price of some one commodity may under these conditions create an increase in its supply but a similar rise in all commodities produces no effect but to disarrange industry. Wheat land can be used to raise corn or corn land for wheat but there is in each case a marked loss by the transfer. Raising the price of the one without a rise of price of the other will have an effect in the increase of quantity of the higher priced commodity but if both rise in price, the net result is nil. To illustrate this, I shall give a table showing the price of land at which, for given crops, profit ceases. This is not meant to show the maximum price to which the best land can go. It is the relatively poor land whose use would be altered by the rising price of another commodity. When, for example, will it pay to change a cattle range to wheat production or to stop producing milk and other dairy products? Such questions may be answered by the following table:

Wheat.....	\$50	Potatoes.....	\$70
Corn.....	120	Rye.....	80
Oats.....	100	Dairy.....	60
Cotton.....	50	Cattle ranges.....	20

A glance at the table will show the changes which high prices are producing. They are reducing the supply of meat and milk, keeping the production of wheat stationary while corn and potatoes

are increasing quantities. The shifts which high prices cause are losses since they force the use of land into unprofitable channels.

To make the bearing of these facts clear the reader must remember the importance of the weather in determining gross annual production. It is easy to arrange tables so that they seem to show the effects of prices on production, but it is equally easy to refute such claims by a full statement of the facts. The variations of the wheat crop amount to about 30 per cent, that of the corn and oats to 20 per cent. Up and down the figures move from year to year but with slight increase in the totals if good years are compared with good years and not with the bad. We have reached the limits of our agricultural production unless some great change is made in the method of production or in the efficiency of agricultural labor. For a century we have extended our agricultural areas without such change in the methods of production. Farming as a trade has remained as it was and land exploitation has been carried to a point where gross produce must soon suffer a reduction. We may hope for a stationary product but not for an increasing one. Price bidding does not alter these tendencies but aggravates them by its emphasis of net produce.

In the past we have relied on the importation of labor to augment production and not the increase of its productivity. Wages thus became a distributive problem, each group getting what its position compels. The basis of this situation is changed by the check to immigration which the war has wrought. We have a fixed, not an increasing, labor force. If the demand of the war for soldiers continues our labor force will actually decrease. In either case we must measure the efficiency of labor by other rules than those in use before the war. Each industry is striving to increase its force or to hold its own by price bidding. The net result is a movement of labor from one occupation to others—a striving to do something new rather than the doing of familiar work in a better manner. Here as in farming we get confusion but not increased efficiency. The high wages make many careless and still more extravagant. Workers wander more than they work, and at their new tasks are less efficient than in those they left. Yet the problem is treated as if the new workers in each occupation were fresh immigrants instead of withdrawals from other occupations. We count what the new occupations gain but do not estimate the losses which other occupa-

tions suffer. A few employers may thus enlarge their output but national production will fall off. The net result of the shifting is a reduction in efficiency. High wages thus make for waste instead of promoting the desired ends for which they are given.

However solid the proof of the fallacy of price bidding, the problems involved are not solved by their statement. It is as necessary to show how production is increased as to show what measures fail to attain this end. This proof is secured not by a study of price movements but by a presentation of the facts on which great improvement in production depend. Antecedent to every increase of production, changes in the processes of production have occurred, and to these the enlarged product should be attributed. An increased production is accompanied by falling prices. These two are cause and effect and not rising prices and growing production. Of this fact sugar is a typical case. Formerly it was assumed that sugar cane depended on the sun for its production. Only sneers met the claims of those who wished to make sugar a northern product. Sugar beet thrived in spite of this opposition and in the end made changes in the production of sugar which materially lowered its price. Not only did the product of the sugar beet become cheaper, but also the product of cane sugar was lowered in price along with an increase of quantity.

This was the first great victory of improved production over price bidding. The lesson was soon applied in other fields by which changes in production were wrought which increased the product along with decreasing prices. We now know the importance of the potato in enabling Germany to free herself from foreign dependence as to her food supply. But for the potato Germany would have starved into submission. While we see this we fail to realize that the method by which this large supply of potatoes was secured is the same in essence as that which augmented the supply of beet sugar. Much of the lands now so productive of potatoes were barren soil a century ago. Scientific investigation adapted the potato to these waste regions and a careful analysis of soils enabled the farmers to supply the elements needed for potato cultivation. It is to science and not to price bidding that Germany owes her salvation in both these cases. What Germany has done all other nations must do after the epoch of the extension of cultivated areas is past.

An apt illustration of these facts comes from the recent develop-



ment of an English colony on the gold coast of West Africa. This region for centuries has been one of the most afflicted parts of the world. It was the center of the slave traffic and suffered all the ills which this trade imposes. In addition, it had one of the worst climates in the world. All the fatal tropical diseases burdened the land, making any improvement seemingly impossible. Yet of recent years a thriving civilization has arisen due to the cultivation of cocoa. A great bar to commerce existed in the presence of flies killing all beasts of burden, thus blocking the transportation of goods. This evil was remedied by the use of automobile trucks. The last obstacle to industrial progress was thus removed and the native population seemingly of the most degraded sort responded to the new situation and now market a third of the cocoa of the world. What rising prices never could have done a series of industrial and political changes has wrought. These facts may be duplicated in a thousand places. The world can increase its production many fold but each increase must come from a better application of skill and knowledge to local conditions. Price bidding may be effective as a cause of agricultural extension but it fails when the increased product must come by transforming poor land into good land or by the application of new processes to the land already in use. Here increased knowledge and greater skill are the only agents in the transformation, and with their use prices fall. Beyond the limits to which any amount of price bidding will increase production is a gross product due to increased knowledge, which is cheaper than what price bidding produced.

The production of sheep and wool in England was stationary until improvements in food and in breeding were wrought. It was the turnip and the new breeds of sheep which increased production of wool and not its high market price. The changes in cattle breeding both in regard to milk and beef tell the same story. The growth of these industries is a history of improved methods, each great change in the quantity produced being the consequence of antecedent stock improvements. These lessons America must take to heart if a remedy for our food shortage is to be found. High prices of food products will fail to stimulate an increase of their production. The remedy is in improved methods of production bringing prosperity to the farmer but also cheapness and plenty to the consumer. We can have double the present agricultural output but only by methods which reduce its price.

These facts are as applicable to raw material as to agriculture. We are apt to think of ores as lying in beds of even composition ready to be more fully exploited through a rise of price. In fact, however, minerals are of very uneven compositions, the mass at any given time being of too low a grade to be worked with profit. Rising prices make good mines more profitable but exert little influence in making of low grade ores profitable adventures. They come into use through chemical discoveries which open up new ways of extracting ores from the material with which they are blended. It was not the high price of pig iron which led to the great increase of the steel industry which has recently taken place. It came with new processes for extracting ores and new economies in their manufacture. Of this fact the increase in the production of silver is a good example. Its output remained stable for many centuries, but little affected by its high price. What this high price failed to do, new processes due to an increase of chemical knowledge wrought. A rapid increase in production at a lower price followed. The history of every mineral product tells the same story. Stationary production is the accompaniment of high prices. We get increased production not in this way but by discovery, invention and increased knowledge, making the growth a result of these causes and not of price bidding. High prices is a distributive process creating profits, not a productive process augmenting production. Only when this is seen can an epoch of high prices like the present be understood. The urgency of war leads to vain attempts to speed up production. From them come high prices and inflation, but gross production is more often decreased than increased thereby.

The annual report to stockholders for 1917 from the United States Steel Corporation shows a falling-off of 5 per cent:

	1917	1916
Iron ore mined . . . . .	31,781,769	33,355,169
Limestone quarried . . . . .	6,494,917	7,023,474
Coal mined . . . . .	31,496,823	32,768,381
Coke manufactured . . . . .	17,461,675	18,901,962
Blast furnace production . . . . .	15,652,928	17,607,637
Steel ingot production . . . . .	20,285,061	20,910,589
Rolled steel products . . . . .	14,942,911	15,460,792
	<hr/>	<hr/>
	138,116,084	146,028,004

A rise of wages increases the net product so long as the physical standard of the laborer is improved. This standard was for city

conditions about \$800 per family at the prices prevailing before the war. Valid evidence also shows that the reduction in the hours of labor is advantageous to both employer and employee. Such changes should be regarded as a part of production and should be judged from their effects as measured by the gross product of industry. Up to a given point, therefore, a rise in wages or a reduction in the hours of labor is a problem of production and can have their effects measured in its terms. Today, however, wage bidding helps those whose wages are above that needed for a normal standard of living. On a limited labor market each group of employers are bidding for workers, pulling them away from their customary work. I do not wish to imply that workers are not justified in making their demands as urgent as possible and in winning for themselves all the gain their advantages permit. At least they have as good a right to exploit their opportunity as have the other classes who profit by the war. It is one thing, however, to uphold them in their endeavor to alter the distribution of wealth in their favor and quite another to maintain that these higher wages increase the gross output of industry. The railroad workers are asking for an increase in wages which amounts to a hundred million dollars a year. If they get it, will their output be correspondingly increased or will their gains be to someone else's loss. The answer is obvious. There will be no change in the gross output of the railroads for the coming year which can be attributed to changes in the wage scale. Measure these increases by any objective standard and their effects on production will be too small to justify the outlay. What is true in this case is evident in the wage bidding which is occurring in the munition and ship building industries. Labor is disorganized by the inducements which wage bidding creates. The labor turnover is increased; men wander but do not work. The old wage would have produced a greater gross return. Even if the change in occupation came more slowly the new labor would have been more effective. A few experiments in the ship building enterprises should convince the public of the fallacy of price bidding in the domain of wages. A slower start would have produced earlier results.

All this does not mean that improvements in the condition of workers cannot be made. It only shows the fallacy of one way of making them. It is the conditions which surround the worker which determine his efficiency. Improvements in health, sanitation,

housing and other elements in the home environment have a bearing on industrial efficiency and by them are the betterments of the worker to be measured. Price bidding thwarts what the local environment stimulates. It leads to dissatisfaction, dissipation and to misplaced energy. Its lesson is therefore the same as that of other price bidding whether in food products or in raw material. There is an increase of waste but not of product. Increased production comes from an organization of the hitherto unused or partially used elements of the working population. It is easier to raise lower groups to a higher efficiency than to divert well paid workers from one occupation to another. A new industry in war time or in peace should build up its own labor force out of the misplaced or partially used workers. A worker's training can be readily acquired if the discipline and oversight is what it should be. The increase of production mainly depends on moving those below the normal standard of living up to this standard and not on giving more to those above this standard.

Why the moving of workers up to a decent standard of living is a productive problem is clearly shown by the rejection of recruits in the recent draft. Above 35 per cent of the recruits were rejected of which 60 per cent were for removable causes. It is also estimated on the basis of these facts that three-fifths of those between 31 and 45 are physically unfit for military duty. A half of the working population are thus below the normal level of physical vigor and of these more than a half are disabled from preventable causes. When we realize the reduction in labor efficiency which these defects cause, we can readily see what their removal means. Industry would gain both in its gross and net product if the cost of this removal were assessed against it. This shows what a living wage with proper care of health, sanitation and housing would do. The interest of every portion of society is promoted thereby. The sacrifices of the poor aid no one. They reduce both the gross and net return of industry.

The way to benefit the higher class of laborers is not by higher wages but by increased inducement to save. Price bidding makes spenders and increases both extravagance and waste. Saving aids production and modifies workers in ways which increase production. The man who spends all he earns, be he a worker or a salaried man, is dependent on a capitalist class and to increase production will in the long run be the victim of the social order his defects make

necessary. It is higher rates of interest which the uplift of the worker demands. He needs motives to check spending and not a freedom to indulge his caprice.

Price bidding, whether in wages, food or raw material, is thus an evil which thwarts the ends which nations in period of stress should promote. It creates personal gains at the expense of public welfare. It is thus an addition to the evils of war, causing a drain on national resources more pernicious than the losses in the battle field. We face a situation which demands more of all essential commodities and not more of some particular article. The increase cannot come from the outside world from which importations have ceased. The stimulus must arouse home production in every essential occupation. This price bidding cannot do. Only changes in the methods of production and in the efficiency and contentment of labor can remove the present shortage of commodities and restore the equilibrium in our national budget.

Prices rise through a pressure from consumers to augment their consumption. This rise is checked by the consumer's unwillingness to pay more or by this power of securing substitutes for the desired commodity. It is not the competition of producers which lowers prices but the ability of consumers to find substitutes. Prices fall through improvements in production. The fall of prices is checked by the withdrawal of producers through the increase of their costs. The rise of prices and the limits to this rise have their origin in the motives of the consumer. The check to the fall in prices comes from motives acting on producers. The antecedents of rising prices must therefore be sought among consumers while checks to falling prices, just as competition among consumers, fail to check their fall. The controlling motives in each case are those of withdrawal. It is he who refuses to produce and he who refuses to consume who fix prices. The community gains neither by high prices nor by low prices. The nearer the level of normal prices is maintained the steadier will be the growth of national prosperity and the more effective will be the motives leading to increased production. Every nation must guard against the profiteering which high prices make and against the dissipation which low prices encourage. Price changes will cure neither of these evils. The remedy is price regulation to prevent upward movements in prices and rigid restraints on consumption to prevent a misuse of lowering prices. With the latter this paper has little to do except to point out their need.

The evils of an upward trend of prices, however, have been shown, and hence arises the urgent need of price regulation. With normal prices the maximum of production could have been obtained if from the start a certainty of return and not a maximum return had been guaranteed. Normal prices in this sense are a little above the price level of years of scarcity. It is this level which price regulation should seek to make stable. The speed at which the industries of an epoch of peace can be transformed to a war basis is the speed at which laborers can be trained in their occupations and machines adapted to new uses. We recognize that a raw recruit needs a year in which to become a trained soldier but we think a worker can be jerked from one occupation to another in a week. This delusion is delaying our war preparation. Had prices been regulated and price bidding avoided we would be months ahead of what we are. Only rigid price regulation and stern restraints on consumption will carry us successfully through a long war. We can rely on the individual motives neither of the producer nor consumer. Both need to be restrained in ways demanded by the public good. If we are not too long in learning this lesson we will not only win the war but be better prepared for the epoch of peace and prosperity which is to follow.

A complete statement of the effects of price bidding cannot be made. It will be years before all the returns are in. These are however, indicative enough to show the trend of production. Of this the limitation to the cotton crop is typical. The good cotton lands are apparently all in use. The doubling of the price has had some effect on the acreage but none on the gross output.

<i>Production in Bales</i>		<i>The Acreage</i>	
1917.....	10,949,000	1917.....	34,600,000
1916.....	11,511,000	1916.....	35,239,000
1915.....	11,161,000	1915.....	31,412,000
1914.....	15,966,000	1914.....	36,832,000
1913.....	13,677,000	1913.....	37,089,000
1912.....	13,820,000	1912.....	34,283,000
1911.....	14,885,000	1911.....	36,045,000
1910.....	11,426,000	1910.....	32,403,000
1909.....	10,088,000	1909.....	32,044,000
1908.....	12,920,000	1908.....	32,444,000
1907.....	11,678,000	1907.....	31,311,000
1906.....	12,546,000	1906.....	31,374,000
1905.....	10,168,000	1905.....	26,117,153
1904.....	12,162,000	1904.....	30,053,739

The other leading crops show the same limitations except in the case of corn and here the exception is more apparent than real. The increased acreage is due mainly to the use of the silo which extends the planting of corn and into areas where it will not mature. We seemed, for example, to have had a record crop for corn last year but 40 per cent of it proved unmarketable showing that it was grown beyond the recognized corn belt. This increase of corn acreage is also at the expense of wheat. But for the enlarged area for wheat cultivation in the upland states of the west where dry farming prospers, there would be a distinct falling off in the production of wheat. The increase of acreage comes in each case from the attempted use of poor land which yields no surplus and soon loses its fertility. The total value of all crops for the five years up to 1914 averaged 9.4 billion dollars. The total of these crops for 1917 was 19.4 billion dollars. The quantity increases, however, were slight, as the following table will show. The one apparent exception is corn, but this exception is more apparent than real. It is fodder corn and not market corn which is increasing. The quantity of market corn was less last year than for 1915 or 1916.

In the table, page 143, the figures on grain are from the Department of Agriculture, and represent farm values. Sugar values are based on average wholesale price of refined sugar at New York. For meats the figures in the 1911 column represent the average for 3 pre-war years, based on 1911 values. For sheep and mutton, except for 1917, the figures are for years ending June 30 of the years stated. All meat values are based on average wholesale prices of legs (for mutton); rounds (for beef); and loins (for pork) for the years stated.

Commodity	Amount Pro- duced 1911	Total Value	Amount Pro- duced 1914	Total Value	Amount Pro- duced 1916	Total Value	Amount Pro- duced 1917	Total Value
Wheat (bu.)	621,338,000	\$543,063,000	891,017,000	\$878,680,000	636,318,000	\$1,019,968,000	650,828,000	\$1,307,418,000
Corn (bu.)	2,531,488,000	1,565,258,000	2,672,804,000	1,722,070,000	2,566,927,000	2,280,729,000	3,159,494,000	4,053,672,000
Oats (bu.)	922,298,000	414,663,000	1,141,060,000	499,431,000	1,251,837,000	655,928,000	1,587,286,000	1,061,427,000
Rye (bu.)	33,119,000	27,557,000	42,779,000	37,018,000	48,862,000	59,676,000	60,145,000	100,025,000
Barley (bu.)	160,240,000	139,182,000	194,953,000	105,903,000	182,309,000	160,646,000	208,975,000	237,539,000
Potatoes, white (bu.)	292,737,000	233,778,000	409,921,000	199,460,000	286,933,000	419,333,000	442,536,000	543,865,000
Rice (bu.)	22,934,000	18,274,000	23,649,000	21,349,000	41,325,000	36,673,000	36,278,000	68,717,000
Sugar (short tons)	960,374	102,664,000	988,674	91,500,940	1,133,626	156,009,600	1,094,240	167,703,220
Sheep and mutton (lbs.)	760,528,000	85,179,136	654,262,000	89,633,894	607,473,000	97,803,153	575,733,000	123,782,595
Cattle and beef (lbs.)	6,504,011,000	637,393,078	6,832,464,000	908,717,712	7,276,155,000	1,004,109,390	8,611,217,000	1,463,906,890
Hogs and pork (lbs.)	7,953,168,000	962,333,328	8,319,048,000	1,281,133,392	10,578,274,000	1,703,102,114	8,473,899,000	2,059,157,457
Bales of cotton	15,553,073	749,890,000	15,905,840	591,130,000	11,363,915	994,060,000	11,000,000	1,517,558,000
Raw wool	331,547,900	52,716,116	346,192,000	60,929,722	300,890,000	83,045,640	298,573,000	140,926,456
Iron ore	40,989,808	86,419,830	39,714,280	71,905,079	77,870,533	181,902,277	75,649,800	236,178,000
Copper ore	29,988,235	137,154,092	35,175,541	152,968,246	57,667,241	474,288,000	55,600,000	510,300,000
Pig iron	23,257,288	327,334,624	22,263,263	298,777,429	39,126,324	663,478,118	38,157,897	.....
Steel rails (number)	2,823,000	79,044,000	1,945,000	54,460,000	2,855,000	91,360,000	2,925,000	111,150,000
Locomotives built (number)	2,015	52,002,939	1,485	25,788,078	2,380	57,202,146	3,076	99,267,004
Freight cars (number)	64,810	59,708,199	95,253	92,123,511	118,016	132,559,842	123,538	206,100,974
Passenger train cars (number)	3,499	42,837,111	3,623	43,245,589	1,338	17,001,885	1,921	25,072,294
Interurban and sub-way cars (number)	557	3,417,574	304	1,660,117	552	2,113,520	426	3,599,971
Street railway cars (number)	3,014	9,120,352	2,101	5,408,444	1,237	4,048,695	1,140	3,984,502